

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/16114

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ H04N5/335, H01L27/146

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ H04N5/335, H01L27/146

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2004
Kokai Jitsuyo Shinan Koho 1971-2004 Toroku Jitsuyo Shinan Koho 1994-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
JOIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 9-270960 A (Hamamatsu Photonics Kabushiki Kaisha), 14 October, 1997 (14.10.97), Par. Nos. [0035] to [0054]; Figs. 1 to 3 & US 6002435 A	1-4
Y	JP 2000-324397 A (Sony Corp.), 24 November, 2000 (24.11.00), Full text; Figs. 1 to 9 (Family: none)	1-4
Y	JP 2002-51264 A (Sharp Corp.), 15 February, 2002 (15.02.02), Par. Nos. [0002] to [0004]; Figs. 6 to 7 (Family: none)	1-4

Further documents are listed in the continuation of Box C. See patent family annex.

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"E" earlier document but published on or after the international filing date
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"&" document member of the same patent family

Date of the actual completion of the international search
23 March, 2004 (23.03.04)

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13 April, 2004 (13.04.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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PCT/JP03/16114

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 9-238286 A (Toshiba Corp.), 09 September, 1997 (09.09.97), Par. Nos. [0013] to [0019]; Figs. 1 to 2 & US 5990948 A & EP 793380 A	3
A	JP 2000-32342 A (Hamamatsu Photonics Kabushiki Kaisha), 28 January, 2000 (28.01.00), Full text; Figs. 1 to 7 & WO 00/02434 A1 & EP 1154483 A & US 2001/8422 A	1-4
A	WO 01/11870 A1 (Hamamatsu Photonics Kabushiki Kaisha), 15 February, 2001 (15.02.01), Full text; Figs. 1 to 14 & EP 1206131 A & US 2002/85104 A	1-4
A	JP 9-51476 A (Hamamatsu Photonics Kabushiki Kaisha), 18 February, 1997 (18.02.97), Full text; Figs. 1 to 6 & US 6201573 A	1-4